Towards relating Maya and contemporary conceptions of cancer: A transdisciplinary process to foster intercultural scientific exchange

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Cancer represents a huge challenge for medical science, surpassing cardiovascular disease and accidents as the major cause of premature deaths. It affects all countries, age groups and economic sectors of society, and in developing countries is responsible for what has been called the "double burden", crippling public health services that are already overwhelmed by problems of infectious diseases. Given these social, economic and scientific complexities of cancer, there have been numerous attempts to find solutions through action-oriented and community-partnered approaches like transdisciplinarity. These projects seek to integrate the perspectives of diverse groups such as academics, government agencies, non-government organizations and community groups with a view to developing solutions that are acceptable to all involved. Some of these partnerships have included indigenous groups and representatives of diverse knowledge systems, though all too often the usefulness of this research has been limited by extreme power differentials among the collaborators.

This thesis describes the development and outcomes of a transdisciplinary research process conducted between indigenous Mayan medical specialists in Guatemala and Western-trained scientists and doctors. It forms part of a larger project entitled ‘Maya and Contemporary Conceptions of Cancer’ (MACOCC). The research is guided by two main questions:

1. How can both Mayan knowledge and medical oncology contribute to the conception and treatment of cancer?
2. What are possible and meaningful ways of relating these systems?

As a first step anthropological fieldwork in 67 Maya communities were conducted to reconstruct the medical knowledge of an equal number of Maya healers, followed by the facilitation of a validation and synthesis process within the Maya Council of Elders. Site visits in Guatemala and Zurich by representatives of both cultures provided spaces for knowledge exchange that was later analyzed. In addition to the primary goal of improving health care for the Mayan community, the results contribute to the longstanding debate of how to foster knowledge integration between epistemic systems.

The thesis consists of three main research articles. The first of these focuses on answering HOW a process can be run to bridge cultural barriers to promote scientific cooperation between extremely diverse epistemic systems. The second paper focuses on WHAT the research reveals concerning the discipline-based topic of cancer, what was learned about the problem framed at the onset of the collaborative research agenda. The third paper presents a case for answering WHAT this process is USEFUL FOR, demonstrating how interdisciplinary analysis of the content allowed to correlate findings regarding the relational aspects of Maya therapy, to the mismatch in current service provision in the public health system of Guatemala.
In the first article the methodological approach employed in the MACOCC project was presented and described how the usual transdisciplinary process was extended to tackle the challenges posed by intercultural diversity. Reflecting on mechanisms to balance power differentials a new tool was presented, the Bidirectional Emic-Etic framework (BEE), designed to foster the exchange of knowledge between epistemic systems. By applying this tool, the two groups were able to define the research problem jointly, and develop procedures for collecting and analyzing the data. The study shows that the iterative dialogues guided by the BEE framework lead to respectful and constructive criticism, which was a key factor for curbing natural tendencies to claim universal validity for any given aspect of healing (in either Mayan or Western medicine). In this way, participants from both groups became more aware of points where their views converged or diverged, thereby facilitating knowledge integration.

The second article is based upon interviews with 67 Maya healers from the Kaqchikel, Kiche’, Mam, Mopan and Q’eqchi’ ethnolinguistic groups, and concerns their conception of cancer, its etiology, its place among emic classifications of disease, their diagnostic tools, and traditional treatments. The article, written for a medical audience, concludes that the traditional Mayan system for classification of diseases offers broad categories of ‘malignant disease’ that are inclusive of cancer. Although there is no one-to-one correlation of any Mayan term with that of cancer as defined by western medicine, local terms were identified that could equate to particular cancer types, opening an avenue for further research. In addition, Mayan healers used concepts that were equivalent to ‘malignancy’ and ‘metastases’, and recognized these as core characteristics of cancer. On the other hand, Mayan healers regard cancer as both a material and a spiritual disease, and their treatments are aimed at restoring the physical, mental, emotional and spiritual equilibrium of a patient, and of his or her larger social circle.

The third article concerns the Mayan concept equivalent to that of ‘therapeutic relationships’ in psychology. It analyzes its embedding in the Mayan cosmogonic understanding of health as balance, proposing the existence of a therapeutic unit, that binds the healer, wellness-seeker, family and community members, the spiritual realm, and nature into a coherent system in which all elements must be present to achieve success. The paper contributes to an interdisciplinary debate among anthropology, psychology and public health on how holism is expressed in relationships typical of indigenous traditional healing and how this concept is important for developing a culturally acceptable health-care system.

The final section contains the discussion how intercultural transdisciplinary research can contribute to reconstructing the historically fragmented Mayan knowledge system, and also some of the limitations of such research. In a more general consideration the potential of transdisciplinary research in relating epistemic systems and promoting knowledge integration is discussed. In sum this project will contribute to improving cooperation between science and society in addressing complex problems, while benefitting from the added value that intercultural diversity can provide. In the end, it is all about understanding each other better so that we can collaborate effectively in solving complex problems.